Water Quality in Poultry Production

Water quality is critical in poultry production yet most poultry farmers do not know how this can impact their flock’s performance. Historically in Zimbabwe, indigenous chickens have been given water that has been used to rinse dishes among other primary uses. Water given to commercial poultry flocks should be of the highest quality with specific reference to taste, colour, odour, alkalinity, acidity, hardness, turbidity (cloudiness), pH and presence or absence of bacteria to minimize the effects on the health and performance of the flock. Water lines can be clogged by dissolved minerals in water thus restricting water flow to the flock thus affecting the growth rate of poultry flocks, and can reduce reproduction and egg numbers in laying flocks. Decreased weight gain, fewer eggs, poor feed conversion, and wet litter can be problems when high levels of minerals are present in water.

The quality of water is affected by the geological makeup of the region, seasonal changes and the environment surrounding the water source such as the direct result of commercial chemical fertilisers or animal manures from surrounding fields seeping into the groundwater supply. As animal health specialists we recommend that drinking water for birds be always clear and with no odour, colour or taste but it is important to also note that even if water appears clear, odourless, colourless and tasteless, it should not be assumed to be safe. The key question to ask is: Would you feel safe drinking the same water your birds drink? Many farmers in Zimbabwe assume that water from a borehole is of high quality especially when compared to municipal water however this notion cannot be generalized unless a water quality test is done at least once every quarter due to the effects of seasonal changes on water quality. The true quality of well water is unknown unless laboratory tests are conducted to determine mineral levels and bacterial content. Fivet Technical Services offers water quality tests for the animal production industry with specific recommendations given on the results obtained. Please contact Fivet Technical Services to get more information on how to collect water samples for testing.

Water that is highly alkaline may also cause poor feed conversion and reduced water and/or feed intake, along with possible diarrhoea and digestive upsets. Thus disinfection of farm water with Aquapure tablets, for example, will give a measured dose of hypochlorous acid when dissolved in water, and thereby provide a convenient, economical and accurate method of disinfection on farms by lowering the pH to slightly acidic. Water treated with Aquapure will be microbially safe for consumption by all farm animals.

Contact Fivet Technical Services and Fivet sales staff to get more information and to place your orders for Aquapure tablets.

Dr Shadreck Magonziwa (BVSc, BBA, MCom)

NB: Specific references are available on request